

Message

From: Kyle W. Palmer [Palmer.Kyle@azdeq.gov]
Sent: 3/6/2017 4:38:42 PM
To: Bolt, Matthew [Bolt.Matthew@epa.gov]; Sablad, Elizabeth [Sablade.Elizabeth@epa.gov]
CC: Jade Dickens [Dickens.Jade@azdeq.gov]; Jason W. Sutter [Sutter.Jason@azdeq.gov]
Subject: RE: Further Queen Creek TMDL draft comments

Matthew<

Here is the section I added to address the hardness issue that you referenced:

The discussion of the existing conditions scenarios in Section 5.4 involved analysis of whether the acute and chronic criterion were being met at the pour point of the modeling basins during each of the storm types. This also required the application of the average total hardness for the sampling data collected from the basin. **Table 4** illustrates the average total hardness for the pour point of the modeling basins moving from upstream to downstream. The numbers demonstrate that as you move from the headwaters of the drainage to its mouth, hardness starts out low and increases. This is typical in most drainages where the slope of the upper to mid reaches is steeper than the lower elevations. The amount of alluvial material is greater downstream where the rate of deposition increases, so the hardness begins to increase as the water moves through more porous substrate, picking up greater amounts of dissolved solids which increase hardness levels. The application of WQBELs will be stricter in areas of low hardness in the upper reaches, guaranteeing that daily loading requirements will not be exceeded in the downstream reaches where hardness values will be higher resulting in less strict WQBELs for permittees.

Let me know if this sufficiently addresses your concerns with this issue. At this point we plan on releasing the document for public comment on Monday the 13th. Thanks for all your help.

Kyle

From: Bolt, Matthew [mailto:Bolt.Matthew@epa.gov]
Sent: Friday, March 03, 2017 6:14 PM
To: Kyle W. Palmer <Palmer.Kyle@azdeq.gov>; Sablad, Elizabeth <Sablade.Elizabeth@epa.gov>
Subject: RE: Further Queen Creek TMDL draft comments

Hi Kyle and Elizabeth,

I believe we were also waiting to hear back on testing of the synthetic storm event model regarding hardness at various points along the creek. Specifically, the question was whether the hardness loadings could potentially dilute enough downstream from where the model suggests the copper is originating (the oak flats/smelter fallout) such that the copper could then become bioavailable again. My understanding is that had not been tested for yet.

I know Elizabeth had some follow up questions yet, and want to line up that exchange. Our conversation on February 24th covered the following relevant topics with my understanding of the subsequent discussion below each, please advise any corrections so I do not mischaracterize any positions.

6. Page 38 separates "WQBEL" from "mass-based"; however, WQBELs can be expressed in concentration or mass. Based on the discussion on page 39, it appears this mass-based WLA is based on actual performance. If designed as an antidegradation limit (capping at current performance), it is a WQBEL. BPJ-based technology based effluent limits (TBELs) are derived according to the factors described in 40 CFR 125.3(d).
Discussion: The point about the sentence on page 38 was noted, was replied that this is a concentration based allocation and that the WWTP allocation is mass-based
7. What types of situations would be considered "expanded individual AZPDES permits" as noted on page 40?

Discussion: This is specifically in case of population growth in the service area due to the incoming mine/industry. No other current permits were identified that would need expansion under AZPDES, it was noted that additional permits would be newly issued.

8. Section 6.3.1.2, second paragraph – recommend changing this to instead state that permittees demonstrate compliance with the WLA as described in their permit.

Discussion: So noted.

Thank You,
Matt

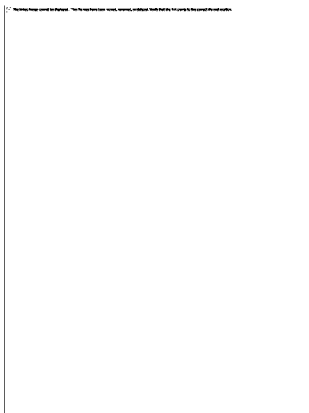
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From: Kyle W. Palmer [<mailto:Palmer.Kyle@azdeq.gov>]
Sent: Thursday, March 2, 2017 10:09 AM
To: Bolt, Matthew <Bolt.Matthew@epa.gov>
Subject: Further Queen Creek TMDL draft comments

Matthew,

I hope the documents I emailed were helpful in answering some of your questions regarding Queen Creek. I was wondering if you had any further issues or comments that had come up or whether we had sufficiently answered the questions that Elizabeth had. Thanks for all your in-put.

Kyle W. Palmer
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